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Health Insurance Organization, Egypt

Contract Number:
263-0170-C-00-3042-00

<p>HIO FINANCIAL SYSTEMS</p> <p>AUTOMATION FEASIBILITY STUDY</p>
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Deliverable 5

USAID Project Number: 263-0170
[Develop a Detailed and Updated Management Information System for the
Egyptian Health Insurance Organization, Cost Recovery Program]

Prepared by:
The MAXIMUS, Chemonics, Arabsoft Project Team

Date:
June 16, 1996

June 16, 1996

Mr. Carl Abdou Rahmaan
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Ref: Contract Number 263-0170-C-00-3042-00

Dear Mr. Abdou Rahmaan:

MAXIMUS is pleased to submit the **HIO Financial Systems Automation Feasibility Study**. This study was compiled based on consultation with numerous individuals from both HIO and contract staff. This study is one part of Deliverable 5 of the above-referenced contract.

HIO's manual accounting and financial management system, though accurate and dependable, is cumbersome, labor intensive, and extremely limited in its reporting capabilities. This study reviews the current accounting system and defines its requirements. It outlines the features that a new automated system should offer. It then proposes two alternative approaches to automating HIO accounting. Both approaches are feasible and would enhance HIO's accounting and financial management. A strategy for implementation of an automated accounting system is also included in this study.

We strongly encourage HIO to pursue automation of its accounting system. The potential benefits are considerable. If designed to meet the criteria and requirements outlined, automation would, while maintaining the fiscal integrity of the current system, streamline HIO's accounting responsibilities and provide management with detailed reports for use in decision making.

We welcome a discussion of any questions you may have regarding this feasibility study. If you would like to discuss this document further, please do not hesitate to contact me.

Sincerely,

Leslie Graham
Chief of Party

June 16, 1996

Dr. Nabil El Mehairy
Chairman
Health Insurance Organization
Heliopolis
Cairo, Egypt

Dear Dr. El Mehairy:

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Sincerely,

Leslie Graham
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cc: Mr. Carl Abdou Rahmaan
General Faisal Taie, HIO

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1 INTRODUCTION

The purpose of this document is to review possible options for automating accounting and financial management within the Health Insurance Organization (HIO). Currently, the HIO performs all financial transactions without assistance of computers. Both USAID and HIO have requested that the MAXIMUS contractor team review current HIO financial activities to determine areas in which automation could be useful. Automation is desired as it would improve efficiency. Just as importantly, however, an automated accounting system would include reporting capabilities. With these accounting and financial reports, HIO management would be able to better monitor HIO's fiscal situation and would have a powerful tool to assist in decision making.

This document provides an overview of the current HIO financial processes, describes typical areas for automation of accounting and financial services, and outlines options for automating some or all of the HIO financial and accounting services.

2 DESCRIPTION OF CURRENT HIO FINANCIAL ACTIVITIES

In studying HIO financial activities, it is important to differentiate between two specific and different areas: **accounting** and **cost accounting**. In the context of this document, an **accounting** activity deals with management of funds. It tracks credits and debits, income, and expenditures. **Cost accounting**, on the other hand, is the science of tracking the source of costs and allocating expenses to cost centers. This document examines the automation of **accounting** functions within HIO.*

2.1 Financial Structure and Responsibilities

There are 28 accounting units within the HIO organizational structure (according to HIO.) These units vary considerably in scope of responsibility, size, and administrative level (i.e., Headquarters, branch, hospital, polyclinic.). The Central Division for Financial Affairs exists at Headquarters under the supervision of the organization's Manager for Finance and Administrative Affairs. The division consists of a General Department of Accounting and Audit, a Budget Department, and a Cost Accounting Department. The General Department of Accounting and Audit is further divided into an Accounting Section, a Revenue Section, and a Purchasing and Inventory Section. This structure is illustrated in Exhibit 2-1.

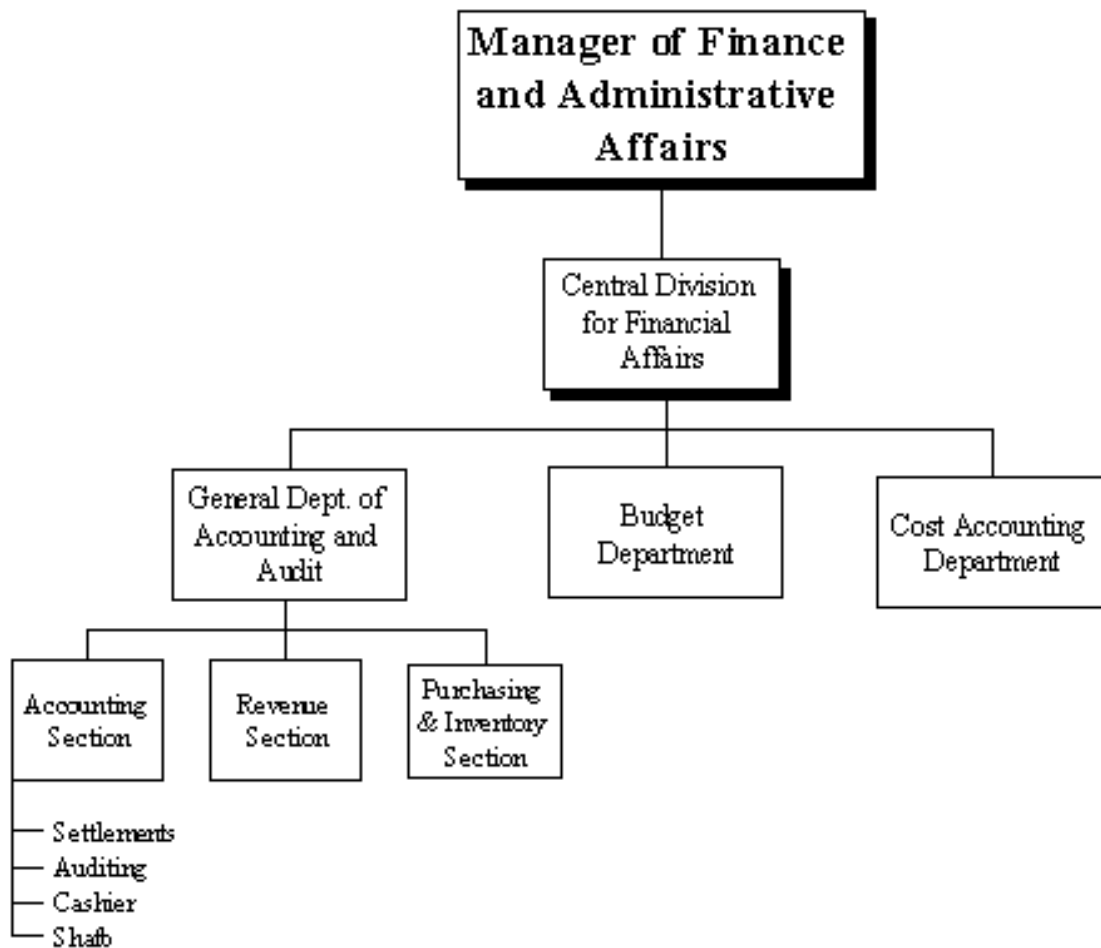
Accounting units at other HIO levels mimic the Headquarters structure, but on a smaller scale. All medical zones have accounting units. Some clinics and hospitals have accounting units. A hospital or clinic accounting unit reports directly to its branch accounting unit. Accounting activities for a clinic or hospital without its own accounting unit are handled by the accounting unit at the facility's medical zone office. The zone office then reports to its branch. Branch accounting units report to Headquarters. An illustration of this reporting system is shown in Exhibit 2-2.

Accounting units are responsible for the bookkeeping of the General Ledger and for producing Form 75, as well as for some high-level cost accounting activities. Form 75 is a complete financial statement. It contains a balance sheet, an income statement, and a cash budget specifying inflow and outflow of funds. The cost accounting statement, a complete version of which is presently produced only at the Northwest Delta Branch, contains expenses allocated to the main cost centers. At a polyclinic, these cost centers are the specialties. At a hospital, these cost centers are the hospital sections.

A zone, clinic, or hospital accounting unit forwards copies of its Form 75 to its branch, where the form is consolidated into the branch's own Form 75. The branch's Form 75 is then forwarded to Headquarters, where it is consolidated, along with the forms from other branches, into the Headquarters Form 75.

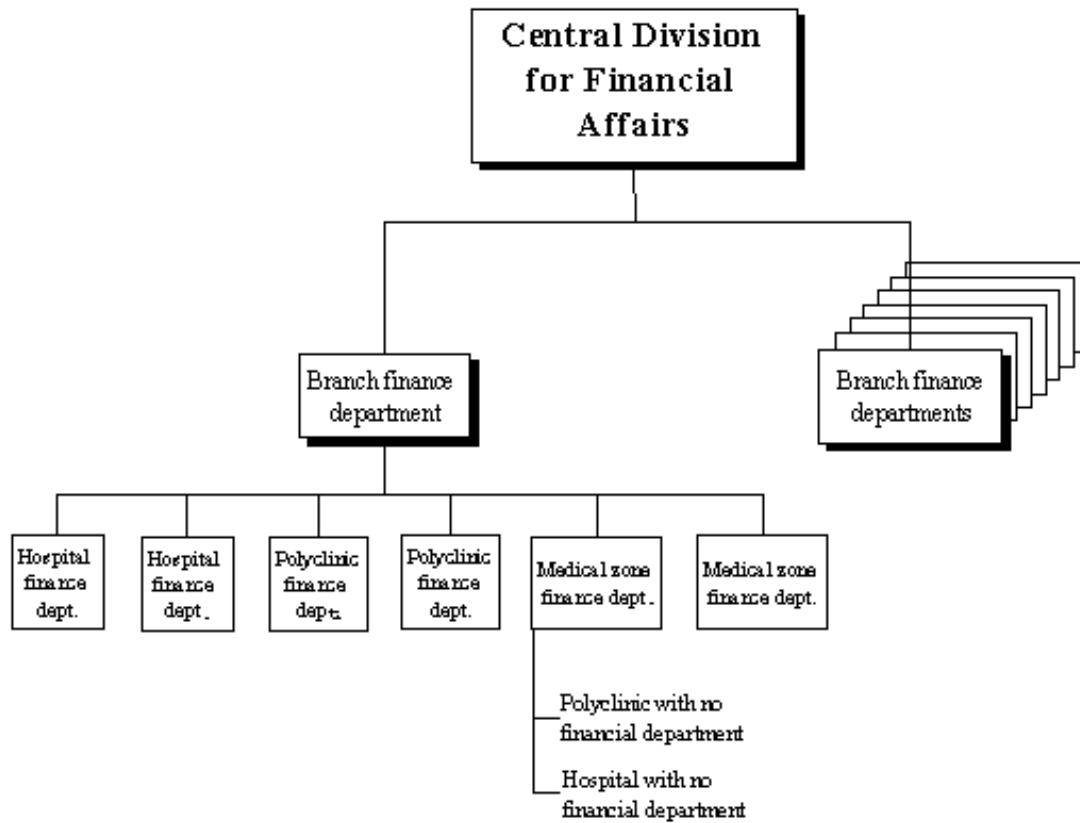
* An automated **cost accounting** system already exists as part of the HIO management information system. Full documentation for this system is available through the HIO MIS Project.

Exhibit 2-1
HEADQUARTERS CENTRAL DIVISION FOR FINANCIAL AFFAIRS STRUCTURE



Note: Branch and zone financial affairs units have the same organizational structure as the Headquarters Central Division for Financial Affairs. The organization of clinic and hospital accounting units is the same as that of the Headquarters Accounting Section illustrated above.

Exhibit 2-2
FLOW OF ACCOUNTING ACTIVITIES



Note: For the sake of this exhibit, "finance department" is a generic term representing the unit performing accounting functions at a branch, zone, or facility.

2.1.1 Headquarters Responsibilities

The primary responsibilities of the Headquarters Central Division for Financial Affairs are:

- o receive monthly checks from SIO, PIO, and government organizations, and deposit them in the HIO account at the Central Bank of Egypt (CBE);
- o allocate revenues to branches by ratio of the number of beneficiaries assigned to each branch;
- o prepare the current year statement and the estimated budget for the coming year;
- o maintain the accounting books and registers containing Headquarters financial transactions; and
- o prepare Form 75 for Headquarters financial activities and, after receiving Form 75 from each branch, prepare the consolidated Form 75.

2.1.2 Branch Responsibilities

The primary responsibilities of a branch accounting unit are:

- o collect monthly checks from the Government Organizations with Law 32 premiums and deposit them in the Central bank of Egypt (CBE);
- o collect and register branch revenues which result from copayments at contracted pharmacies, HIO-owned pharmacies, and hospital accommodation settlements;
- o allocate revenues to medical zones based on the number of beneficiaries assigned to each zone;
- o send to Headquarters an estimate for the branch budget for the following year;
- o maintain the accounting books and registers containing branch financial activities (this includes all pharmacies, hospitals, clinics, and physicians with which the branch contracts), as well as the branch's own payroll, purchasing, inventory control, and so forth;
- o prepare Form 75 for branch financial activities and, after receiving Form 75 from zones, hospitals, and clinics, prepare the consolidated Form 75;
- o send the consolidated Form 75 to the Headquarters; and
- o process provider and supplier claims and invoices.

2.1.3 Medical Zone Responsibilities

The primary responsibilities of a medical zone accounting unit are:

- o prepare and send to the branch an estimate of clinic and hospital budgets for the following year;
- o maintain the accounting books and registers containing medical zone financial activities, as well as for financial activities of the zone's clinics and hospitals not having their own accounting units; and
- o prepare Form 75 for clinics and hospital not having their own accounting units, and forward those forms to the branch.

2.1.4 Clinic and Hospital Responsibilities

While most HIO hospitals have accounting units, very few HIO clinics have accounting units. Accounting at facilities with accounting units is handled differently than at facilities without accounting units.

2.1.4.1 Clinics and Hospitals without Accounting Units

Medical zone offices handle all accounting activities on behalf of facilities without accounting units. A zone reports accounting information for its facilities to the branch. Facilities without accounting units have a revenue unit for collection of copayments and a cashier to handle petty cash or sundry expenses. Copayments are deposited daily in the bank account of the medical zone to which the clinic or hospital reports.

2.1.4.2 Clinics and Hospitals with Accounting Units

In the case where an accounting unit exists in a facility, it serves the same function (for that facility) as does a medical zone for facilities without accounting units. Like a medical zone, a facility with an accounting unit reports directly to its branch. In terms of accounting, facilities with accounting units have no relationship with a medical zone.

2.2 HIO Accounting Practices

The HIO follows the Unified Accounting System (UAS) in all its financial practices. The system is an accrual-basis system and enforces strict control on financial activities through a considerable amount of bookkeeping and number of registers. Computerization of some accounting tasks, so long as it is done in conformity with UAS standards, would contribute to the efficiency and accuracy of HIO accounting and financial management.

Currently, budget forecasts are developed based on the previous year's expenditures plus a ratio for inflation, investment, and anticipated nonrecurring expenditures for every organizational unit. Automation of HIO financials would greatly expand the potential for budget modeling and a more sophisticated financial planning process.

The following sections describe procedures followed by accounting units at all levels — Headquarters, branch, zone, and facility — in their various areas of responsibility. These areas are:

- o payroll,
- o the General Ledger,
- o accounts receivable,
- o accounts payable,
- o budget,
- o inventory and purchasing,
- o cashier, and
- o fixed assets.

2.2.1 Payroll

The HIO accounting and financial structure has no responsibility for payroll beyond the actual payment function. Payroll activities in HIO are the responsibility of the Personnel Department under the Administration Unit. Payroll forms (Form 132) are prepared at the Administration Unit and then sent to accounting for payment to employees. Payment is handled through the General Ledger area.

2.2.2 General Ledger

Responsibilities related to the General Ledger are as follows:

- o Receive all disbursement requests (Form 50) and payroll forms (Form 132) for salaries disbursement, revise them technically and financially, then issue Journal Vouchers and fill Book 55 for all incoming disbursement requests.
- o Maintain all General Ledger books (detailed and summary). Issue all checks after updating the registers, edit the journals, and check that all register amounts are balanced or matched.

- o Produce Form 75 monthly and quarterly. Produce financial statements based on the General Ledger books.

2.2.3 Accounts Receivable

Responsibilities related to accounts receivable are as follows:

- o Adjust the balances of Book 16 (debit balances) and Book 17 (miscellaneous debtors) with amounts due. Amounts due can include employee loans, loans or advances given to vendors in return for goods or services, and so forth.
- o A major part of managing accounts receivable is the oversight of refunds for treatment outside the country. Refunds related to treatment outside of Egypt are commonly quite large. The settlement of accounts occurs between HIO Headquarters and Government of Egypt medical offices located abroad. HIO maintains accounts with these offices to cover expenses of its beneficiaries being treated in that country. This activity occurs at the Headquarters accounting unit only.
- o Settlement of the revenues due from the SIO and PIO. This is usually done at the end of the fiscal year.
- o Settlement for other clients (fee for service, students law, treatment by case, etc.).

2.2.4 Accounts Payable

Responsibilities related to accounts payable are as follows:

- o Adjust Book 26 (credit balances) and Book 27 (miscellaneous creditors) with amounts due by HIO to different organizations (e.g., tax authority, SIO, PIO, etc.).
- o Maintain records of transactions such as:
 - . taxes due,
 - . insurance amounts deducted from HIO employee pay and due to PIO,
 - . transactions due to the public and private sector entities in return for goods or services,
 - . amounts due to syndicates,
 - . services or goods delivered, and

. amounts due to syndicates.

- o Maintain records of advance payment transactions (for contracted hospitals, primary insurance in tenders and bids, etc.). These transactions are recorded as a negative or credit amount. These show in the quarterly report balances in red color as an outstanding balance.
- o Settle service provider payables as well as supplier payables.

2.2.5 Budget

Responsibilities related to budget preparation are as follows:

- o In October of each year, receive at Headquarters the budget projections for the next fiscal year (July-June). These are received from the different HIO organizational units or departments and are based on the previous year's activities and expenditures.
- o Add a percentage to the current budget projections to compensate for inflation.
- o Adjust the budget at Headquarters to account for unusual trends and to match the actual expenditures of the previous fiscal year(s).
- o Obtain approval of the budget from government agencies — Ministry of Planning, Central Audit Agency, and Central Planning and Administration Agency — for specific aspects of the proposed budget. When these ministries approvals have been secured, obtain final approval of budget from the Ministry of Finance.
- o Maintain a portion of the approved budget as a contingency and distribute the balance to the different expense items. Then allocate the expense item budget to the different accounting units based upon the requirement of each accounting unit.

2.2.6 Inventory and Purchasing

Responsibilities related to inventory and purchasing are as follows:

- o Headquarters, and in some cases a branch, handles the procurement of commodities through tenders, bids, or direct order.
- o Headquarters monitors the stock balances at the stores and initiates the procurement process.
- o Upon receipt of commodities, the stockkeeper issues Form 112, adjusts the store book (Form 118) and sends the invoice, the original procurement or purchase order, and a copy of Form 112 to the accounting unit to which the store reports.

- o When commodities are dispensed, Form 111 (the Authorized Dispensing Form) is issued and the store books (Form 114) are adjusted. The storekeeper sends a copy of Form 111 to the accounting unit to which the store reports. In the accounting unit the ledger books are adjusted and balance reports of stock items are produced.
- o Upon return of any goods to the store, the amounts equivalent to the goods returned are registered on Form 187 (Return Form). The storekeeper sends a copy of Form 187 to the accounting unit to which the store reports. In the accounting unit the ledger books are adjusted and balance reports of stock items are produced.
- o A physical inventory takes place at the end of the fiscal year (theoretically, it should take place every quarter) and accounting stock balances should match those of the stores.

2.2.7 Cashier

Responsibilities related to the cashier are as follows:

- o At the beginning of the fiscal year, receive the advance loan for petty cash or sundry expenses from the accounting unit to which the cashier reports.
- o Register petty cash amounts (not exceeding £E50 except in hospitals where larger amounts could be dispensed for emergencies) in the Fixed Loan Register.
- o Issue reimbursement request to the accounting unit whenever the amount reaches an agreed-upon limit.
- o At the end of the fiscal year, settle the remaining balance with the accounting unit.
- o Disburse funds due to HIO staff via checks issued by the Central Bank of Egypt (CBE). Checks are issued in the name of the cashier but in favor of HIO employee.
- o Return undisbursed amounts to the same CBE account within ten days and send list of employee names entitled to these amounts, as well as disbursement forms, to the accounting unit to which the cashier reports.
- o When balance of petty cash exceeds £E200, deposit any incoming cash in the CBE account and forward receipts to the accounting unit. Incoming cash may be from insurance amounts (in case of tenders), charges for specification documents, or charges for certificates of experience issued to HIO employees.

2.2.8 Fixed Assets

Responsibilities related to fixed assets are as follows:

- o Record in the fixed assets detail book (categorized by type of asset) all information concerning each asset (e.g., asset start date, cost, depreciation rate, etc.).
- o Record in the fixed assets aggregate book the value of each asset (value when acquired or made operational).
- o Update the books quarterly with the depreciation installment and the remaining balance. The depreciation is based upon a fixed installment. The quarterly depreciation installment is calculated based upon the estimated life span of the asset group.
- o When a fixed asset is fully depreciated and is still operational, it is kept in the register with a zero amount. A one-time 50% value of the original depreciation installment is calculated as an additional depreciation and posted to a reserve account to buy a new asset.

2.3 General Assessment of HIO Financial Practices

HIO financial procedures precisely follow the Unified Accounting System (UAS). The UAS is a consistent but very restrictive system enforced by the Government of Egypt on the Health Insurance Organization (as well as all Egyptian governmental economic units). The major drawback to the UAS is that it requires extensive bookkeeping, transaction records, and aggregation reports, each demanding considerable manual effort.

Books and registers used to keep these records are official and can not be substituted or omitted. For this reason, automation would not significantly reduce the extensive manual effort needed to meet requirements of the UAS unless approval could be obtained to substitute nonessential subledgers with preprinted, serialized, legal-stamped computer paper.

For the purposes of the HIO, the UAS is also weak in its lack of management reports. Aggregate reports that are a part of the system are not really adequate for management decision making. By introducing automation to HIO financial practices, however, the area of financial management reporting would be more feasible.

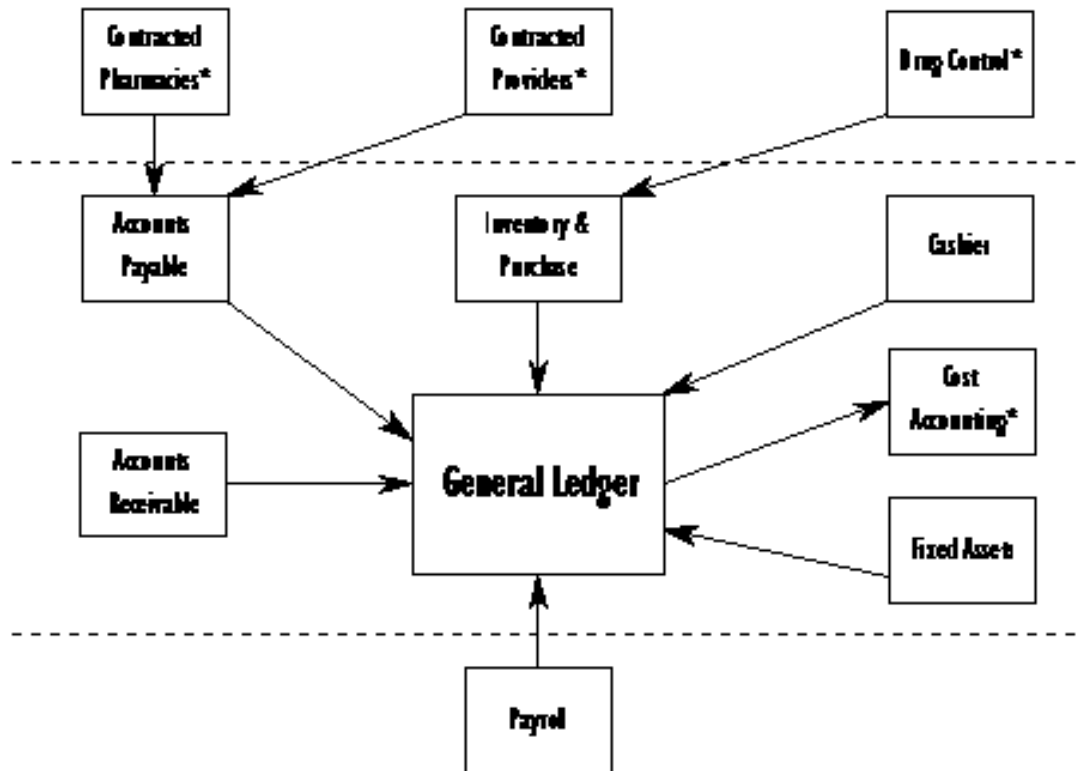
3 SUGGESTED STRATEGY FOR IMPLEMENTING AN AUTOMATED HIO ACCOUNTING SYSTEM

The automation of HIO financial processes would, while maintaining HIO's high level of fiscal integrity, facilitate management's ability to make well-informed decisions, lead to reduced operating costs, and, ultimately, contribute positively to the quality of service HIO is able to provide its beneficiaries. These benefits become particularly attractive in light of the growing HIO beneficiary pool and rising demand for services by beneficiaries already enrolled.

At the same time, however, any attempt to fully automate HIO's accounting system **in one step** would prove extremely complicated, difficult, time-consuming, and expensive. An automated system would, by necessity, be organized into modules based on HIO's standard accounting procedures (general ledger, accounts receivable, etc.). Presently, HIO accounting units are not organized along these lines; employees are responsible for specific ledgers or forms and not for a specific procedure. While this organizational structure works well with the manual system, it would be not at all compatible with an automated accounting system. Were an automated accounting system introduced in one step, HIO accounting units at all levels would simultaneously need to be completely reorganized and realigned to interact with the system.

We therefore suggest that the HIO automated accounting system be phased in slowly; built and implemented one module at a time, starting with the General Ledger. This module would automate a considerable amount of financial bookkeeping and reporting. Introduced by itself, it would require minimum staff reorganization and allow HIO staff to grow accustomed to the idea of automation. As time passes and the automated General Ledger becomes an integrated part of HIO accounting, further modules — such as accounts payable, which is typically an area of heavy transaction recording — can be introduced one at a time based on their relevance and importance to HIO financial activities and concerns. The strategy of introducing one system module at a time allows HIO to prioritize its accounting automation needs, gives accounting units the opportunity to reorganize and adjust to necessary organizational changes, and will ultimately result in a fully-integrated accounting system. Exhibit 3-1 is an illustration of this system, along with its links to other HIO MIS modules already implemented and in use.

Exhibit 3-1
PROJECTED HIO AUTOMATED ACCOUNTING SYSTEM



*Module presently exists as part of the HIO management information system.

4 RECOMMENDATIONS FOR HIO FINANCIAL AND ACCOUNTING AUTOMATION

The HIO is bound, by Government of Egypt regulations, to the Unified Accounting System (UAS). As a result, any automated system adopted by HIO must conform to the specifications of the system. This section explores two options for obtaining such a system — developing software from scratch and adapting software already in existence — and outlines basic requirements and specifications for each. So long as the implementation strategy described in Section 3 is followed, either choice would be of substantial benefit. Further, in-depth analysis would be needed, of course, before a decision was made.

4.1 Develop Accounting Software

This section describes the advantages and disadvantages of developing (creating) an automated HIO accounting system. As a further basis for consideration, it also includes an abbreviated functional design for an automated General Ledger System.

4.1.1 Advantages and Disadvantages to Developing New Software

Developing software to automate HIO accounting and financial management has three major advantages:

- o The software could be developed to meet HIO's specific accounting needs.
- o It could be developed as an integral part of the HIO management information system, increasing its usefulness as well as the usefulness of other already-existing MIS modules.
- o It could be built to the specifications of the UAS and so conform to Government of Egypt regulations. Complying with the UAS, the automated system could eventually replace most, if not all, of the manual system.

Developing (versus buying) a new system also has disadvantages. Developing a new system from scratch would probably be more expensive than purchasing and adapting an already-existing software package.

4.1.2 An Abbreviated Functional Design for an Automated General Ledger System

As mentioned in Section 3, we suggest that a General Ledger System be the first module developed in an automated HIO accounting and financial management system. There are several reasons for this:

- o The General Ledger is the central point for all accounting and financial activities.

- o Interface requirements of the General Ledger system are straightforward and can be determined easily without the need to analyze other finance modules in depth.
- o The module can be developed in a reasonably short period of time.
- o The module would provide a substantial benefits immediately. It would facilitate work in the remaining manual aspects of HIO's accounting system. It would also produce reports useful for middle and upper HIO management.
- o The system can be replicated, without change, at all levels of HIO (Headquarters, branch, medical zones, and hospitals).
- o When other financial and accounting modules are developed, links can be easily established between them and the General Ledger System.

4.1.2.1 Functional Requirements

Exhibit 4-1 describes the functional requirements for the automated General Ledger Module.

4.1.2.2 Interface Requirements

In developing the General Ledger Module, it is important to keep in mind that it will eventually be a part of a larger automated HIO accounting system. As illustrated in Exhibit 3-1, the General Ledger Module be designed to interface with the:

- o Accounts Payable Module,
- o Accounts Receivable Module,
- o Inventory and Purchasing Module,
- o Budget Module, and
- o Fixed Assets Module.

The module must also be capable of interfacing with the existing HIO MIS Cost Accounting Module.

Exhibit 4-1
GENERAL LEDGER MODULE — FUNCTIONAL REQUIREMENTS

Function Type	Item
Accept	<p>Inputs prepared at the Headquarters level:</p> <ul style="list-style-type: none"> o The chart of accounts (entered through the Cost Accounting Module) o The chart of cost centers (entered through the Cost Accounting Module) <p>Inputs processed by each accounting unit:</p> <ul style="list-style-type: none"> o Form 50 (disbursement requests) o Form 132 (salary disbursements) o Transaction Authorization Ledger (Form 1) o Cashier's transactions o Checks received from SIO and PIO o Miscellaneous revenue remittances o Approved current budget o Accounts payable transactions (hospital contracting advances, amounts due to syndicates, taxes due, etc.) o Source taxes deducted from vendors o Accounts receivable entries (employee loans, advance payments, refunds from treatment outside Egypt, Revenue settlement with SIO and PIO, etc.) o Other adjusting entries o Quarterly fixed asset depreciation entries
Process	<ul style="list-style-type: none"> o Post manual transactions to the general ledger accounts o Consolidate individual accounting units' financial statements
Produce:	<ul style="list-style-type: none"> o Journal Report o Subsidiary Ledger Transactions Report o Cashier's Journal o Monthly/Yearly Trial Balance o Form 75 for accounting units (individually) o Headquarters-level Form 75, including: <ul style="list-style-type: none"> . Income statement . Balance sheet . Cash inflows and outflows o Cost center statements

4.1.2.3 Hardware Requirements

The amount of computer hardware required for the General Ledger Module would be

site-specific, and vary depending on the number of employees using the module and the number of transactions processed per day. Exhibit 4-2 lists estimates for hardware requirements of the General Ledger Module based on these criteria. It is important to note that these hardware estimates are for the General Ledger Module only. Other, subsequent, accounting modules that may be developed would require additional hardware.

Exhibit 4-2
GENERAL LEDGER MODULE — HARDWARE REQUIREMENTS

Unit Size	Hardware Required
Accounting unit with 15-20 General Ledger employees and 400-600 or more transactions per day	<ul style="list-style-type: none"> o 4-5 terminals o 2 printers
Accounting unit with 10-15 General Ledger employees and 200-400 transactions per day	<ul style="list-style-type: none"> o 3-4 terminals o 2 printers
Accounting unit with 4-10 General Ledger employees and 100-200 transactions per day	<ul style="list-style-type: none"> o 2 terminals o 1 printer
Accounting unit with fewer than 4 General Ledger employees and fewer than 100 transactions per day	<ul style="list-style-type: none"> o 1 terminal o 1 printer

Note: These hardware estimates presuppose the existence at a given site of an HIO MIS server complete with system software. Additional storage media, device parts, or user licenses may also be required.

4.1.2.4 Development Environment Requirements

The development environment of the General Ledger Module should be based on the existing HIO MIS platform:

- o AT&T 3000 series;
- o UNIX operating system, version 4, NFS;
- o Oracle7 database management system, and
- o TCP/IP telecommunications protocol under an X.25 network.

4.2 Procure and Adapt Existing Accounting Software

The second option available to HIO in automating its accounting and finances is to identify and procure an existing accounting software package that meets its needs and requirements. Foremost, the package would have to comply with the Unified Accounting

System. Based on a brief survey, no automated package meeting this criterion and suitable for an organization as large as the HIO is available on the open market. Some organizations do offer individual accounting modules that run in standalone mode. However, these modules were developed using third-generation language and run on proprietary operating systems, not open systems, making them incompatible with the existing HIO MIS.

However, HIO should consider this option. More extensive research on the market may identify an accounting package that does in fact meet HIO's requirements. Furthermore, there is the chance that another Government of Egypt agency has already developed its own package and that it could be adapted to meet HIO's needs and transferred to HIO through governmental channels.

The following subsections list particular features and specifications an accounting package would need in order to meet the needs of the HIO.

4.2.1 General Specifications

When considering an accounting package, HIO should ensure that it meets certain general requirements. The package should:

- o run on a UNIX platform;
- o operate using an RDBMS that supports an open-system architecture, preferably ORACLE;
- o include complete technical documentation and user documentation;
- o be fully integrated across its submodules;
- o be easily integrated with existing HIO MIS modules (Drug Control, Contracted Providers, Contracted Pharmacies, and Cost accounting); and
- o comply with the Government of Egypt Unified Accounting System.

4.2.2 General Ledger System Specifications

The General Ledger System of the accounting package should meet the following requirements:

- o The system should have 14 accounting periods. These periods should be:
 - . an opening balance period at the beginning of the fiscal year for opening balances processing,
 - . twelve (12) accounting periods for transactions of the 12 fiscal year months, and
 - . a closing balance period at the end of the fiscal year for closing balances processing.
- o Accounts should have at least six levels of detail to match the Unified Accounting System chart of accounts structure.

- o Accounts should be classified into two categories:
 - . subaccounts for daily transaction data entry, and
 - . main accounts for aggregation of subaccount balances.
- o The system should have a consolidated or aggregate account number for aggregation at the Headquarters level.
- o The system should allow entry of cost center transactions for cost accounting purposes.
- o Data entry of daily transactions should include at least 12 digits, including two decimal positions.
- o Data will be entered from a predesigned manual data entry form that will include the account number, cost center number, amount, and a one-line description of the transaction.
- o The system should produce the following monthly reports and statements:
 - . trial balance,
 - . cash budget,
 - . income statement,
 - . balance sheet,
 - . comparison between current accounting period balances and previous accounting period balances,
 - . comparison between current accounting period balances and the balances of the same period of the previous fiscal,
 - . comparison with budget figures,
 - . cost center expenditure balances,
 - . journal report,
 - . cash inflows and outflows,
 - . consolidated reports at the Headquarters level.

- o The system should perform the following tasks:
 - . handle cashier functions,
 - . issue cashier checks to the Central Bank of Egypt,
 - . adjust remaining balance and issue reimbursement notice of the petty cash account,
 - . automatically close and open accounts at the end of the fiscal year
 - . consolidate at the Headquarters level.

4.2.3 Accounts Receivable System Specifications

Since the procedures for accounts receivable in the HIO are limited, we suggest that the accounts receivable functions be included as part of the General Ledger System.

4.2.4 Accounts Payable System Specifications

The Accounts Payable System of the accounting package should meet the following requirements:

- o The system should include all vendor information.
- o A vendor should have one general ledger account number for each applicable transaction category (vendor, asset purchasing, debtor, etc.).
- o Advance payments should have individual General Ledger account numbers. The system should register advance payments at the beginning of the fiscal year and track all transactions in detail.
- o The system should record details on all invoices, including:
 - . vendor number,
 - . invoice number,
 - . description,
 - . General Ledger account number for the transaction, and
 - . payment.
- o Transactions for source taxation (taxes deducted from the source) should be tracked in detail.

- o The system should produce the following reports:
 - . Vendor List,
 - . Details of Advance Payments,
 - . Purchasing Journal by Date,
 - . Purchasing Journal by General Ledger Account Number,
 - . Purchasing Journal by Vendor Account Number,
 - . Invoice Payment Journal by Date,
 - . Cash Payment Journal,
 - . Vendor Settlement Journal,
 - . Vendor Late Payment,
 - . Vendor Trial Balance,
 - . Advance Payment Trial Balance,
 - . Vendor Tax Deducted Quarterly (Form 40), and
 - . Quarterly Taxes Due to Tax Organization (Form 41).
- o The system should:
 - . post invoice transactions,
 - . post invoice amounts to the balances file,
 - . Post invoice payments to the balances file,
 - . prepare the necessary General Ledger journal entries,
 - . post journal entries o the General Ledger System, and
 - . prepare source taxation entries.

4.2.5 Budget System Specifications

The Budget System of the accounting package should:

- o include current and investment budgets,

- o include the capability for a consolidated budget at the Headquarters level and at the level of every accounting unit (complying with the Unified Accounting System budget section),
- o record and maintain original budget amounts and every amendment occurring on these amounts (additions or transfer to other items),
- o record and maintain original commitment amounts and all actual payments related to these amounts,
- o maintain details of investments budget figures by source of finance,
- o record and maintain details of original project budget amounts and all updates on these figures (additions or deductions), and
- o produce the following reports:
 - . Headquarters Budget by Group of Items,
 - . Headquarters Budget by Item,
 - . Headquarters Budget by Type of Item,
 - . Accounting Unit Monthly Budget by Group of Items,
 - . Accounting Unit Monthly Budget by Item,
 - . Accounting Unit Monthly Budget by Type of Item,
 - . Subsidiary Budget Status,
 - . Commitments Ledger,
 - . Undispensed Commitments,
 - . Budget Transfers, and
 - . Budget Added Figures.

4.2.6 Inventory and Purchasing System Specifications

The Inventory and Purchasing System (covering all commodities except drugs, whose purchasing and inventory is handled by the HIO MIS Drug Control Module) should:

- o maintain inventory records for items in multiple stores;
- o generate and follow up purchase orders placed to suppliers;

- o follow up request orders placed from clinics;
- o follow up reorder stock level, minimum stock level, and maximum stock level;
- o maintain inventory records for scrap items in multiple stores;
- o register stock transactions (stock receipts, stock issues, transfer between stores);
- o calculate unit cost issues based on the applied pricing practice;
- o integrate with the General Ledger and Budget Systems, as well as with existing HIO MIS modules such as Cost Accounting, Contracted Providers, and Contracted Pharmacies; and
- o produce reports such as:
 - . Stock Quantities and Amounts On Hand,
 - . Total Inventory Cost Classified by Store or Pharmacy,
 - . Items Reached Order Level,
 - . Generated Purchase Orders,
 - . Purchase Order Follow-Up,
 - . Purchase Requests Follow-Up,
 - . Item Transaction History,
 - . Inventory Turnover, and
 - . General Ledger Entries.

4.2.7 Cashier System Specifications

The Cashier System can be covered by the General Ledger System described in Section 4.2.2.

4.2.8 Fixed Assets System Specifications

The Fixed Assets System should:

- o track fixed asset information, as well as additions and disposals occurring on those assets;

- o categorize fixed assets into main investment groups and sub investment groups, and determine the annual depreciation ratio on each subgroup;
- o maintain a General Ledger account number for each main investment group;
- o maintain a General Ledger subaccount number for each fixed asset subinvestment group;
- o allocate depreciation installments to specific cost centers;
- o quarterly, calculate depreciation installments on fixed assets;
- o allow calculation of an additional depreciation installment for fully-depreciated assets and allocate it to the "Reserve for Price Increase" account;
- o post quarterly depreciation installments to the General Ledger System; and
- o produce the following reports:
 - . Fixed Assets Allocation by Investment Group,
 - . Fixed Assets Allocation by Subaccount,
 - . Fixed Assets Allocation by Accounting Unit,
 - . Fixed assets Allocation by Zone,
 - . Fixed Assets Depreciation Installments and Reserves by Investment Group,
 - . Fixed Assets Depreciation Installments and Reserves by Accounting Unit,
 - . Fixed Assets Depreciation Installments and Reserves by Cost Center,
 - . Detailed Fixed Assets Depreciation Entries,
 - . Fixed Assets Basic Information List, and
 - . Basic Information on Disposals and Additions to Fixed Assets List.